

**ABSTRACT**

Systems and methods of retraining a receiver provide for determining a minimum transition density for a derived clock data link to the receiver. A retraining flit is generated based on the minimum transition density. In one approach, the retraining flit is generated by defining control data and payload data for the retraining flit. Error detection data is determined for the retraining flit based on the control and the payload data. The control data, the payload data and the error detection data have sufficient transitions to meet the minimum transition density.